

POLYOLS CONTAINING CARBOXYL GROUPS
AND PRODUCTION THEREOF

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ABSTRACT OF THE DISCLOSURE

The present invention is directed to a low viscosity carboxyl-containing polyol composition having a viscosity in the range of about 3,000-100,000 centipoise, and having an oligomer content of less than 30 mg KOH/g. Preferably, the carboxyl-containing polyol has one ester group per molecule. The carboxyl-containing polyol is suitable for use in preparing low viscosity polyurethane prepolymers. Also disclosed is a method of producing this carboxyl-containing polyol composition by reacting a low molecular weight triol with an acid anhydride in the presence of 25-500 ppm of an inorganic or organic acid catalyst. The organic or inorganic acid is preferably selected from the group consisting of hydrochloric acid, sulfuric acid, nitric acid, formic acid, propionic acid, p-toluenesulfonic acid, oxalic acid, and combinations thereof. The present invention is also directed to methods of making the above carboxyl-containing polyols, as well as prepolymers and urethane polymers containing the above carboxyl-containing polyols.

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